

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/808,781	DORI, DOV	
	<b>Examiner</b>	<b>Art Unit</b>	
	Jason Proctor	2123	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/27/05.
2. ☒ The allowed claim(s) is/are 1-40.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

## **REASONS FOR ALLOWANCE**

Claims 1-40 were rejected in office action of 27 September 2005. Applicants' response has amended claims 1, 14, 16, 28, 30, 33 and 34. Claims 1-40 are pending in this application.

Claims 1-40 are allowed.

### ***Claim Rejections - 35 USC § 112***

The previous rejections of claims 1-40 have been withdrawn in response to Applicants' amendments to independent claims 1, 14, 16, 28, 30, 33, and 34.

### ***Disclaiming Affidavit***

The disclaiming affidavit submitted on 27 December 2005 is regarded as evidence that the publication known as Mor Peleg and Dov Dori, "From Object-Process Diagrams to a Natural Object-Process Language," published July 1999 (referred to as "Peleg2" in the previous office action) was derived from the Applicants' work. For clarity, the affidavit makes the following statement:

"Based on my review of the Application in light of the Publication, I conclude that any portions of the Publication that may be relevant to the subject matter described and claimed in the Application originated solely from Dov Dori"

which is interpreted as referring to both the subject matter disclosed in the application as well as the subject matter presently claimed.

## **REASONS FOR ALLOWANCE**

The following is an examiner's statement of reasons for allowance:

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During the course of prosecution, Applicants have relied upon the limitation “said model diagram represents one or more functional aspects, one or more structural aspects, and one or more behavioral aspects of a system” as recited in independent claims 1, 16, 30, 33, 34 to distinguish the claimed invention over the prior art (Applicants’ response, 5 July 2005, pages 14, 18, 19, etc.).

Where independent claims 1, 16, 30, 33, and 34 as well as several dependent claims recite “at least a subset of a natural language” and/or “textual description,” these terms are interpreted in light of the disclosure of the application, in particular as exemplified in FIGS. 1-12, 39, and 40 in box 104; specification pages 46-47; etc. Further, as claims 14 and 28 are directed toward “using the generated text as input for a generic code generator ... for translating the generated text into a specific programming language,” which clearly suggests that a “textual description” in the context of the claims is other than a computer programming language.

The language of claims 14, 15, 28, 29, and 32 include limitations of “using” which are interpreted as positively recited steps of their respective methods.

The closest prior art of record was applied in the previous office action. Applicants’ response has disqualified the publication known as Mor Peleg and Dov Dori, “From Object-Process Diagrams to a Natural Object-Process Language,” published July 1999 (referred to as “Peleg2” in the previous office action) as prior art under 35 U.S.C. § 102(a) by showing that it is not “by another.” This reference was critical to the rejection for providing substantial teachings in the prior art. An updated search of the prior art has failed to reveal an additional reference or references that provide similar or equivalent teachings.

The prior art of record teaches:

Graphical programming systems (US Patent No. 5,187,788 to Marmelstein) that contemplate only a software “system,” and therefore fail to teach the limitation of representing functional, structural, and behavioral aspects of a system because a software system lacks at least a “structural” aspect. These prior art teachings also fail to teach generating a textual description of the diagrammed model, wherein said textual description is consistent with at least a subset of a natural language.

Modeling systems that graphically represent procedures and objects (US Patent No. 5,481,668 to Marcus), which teach essentially the same concepts as graphical programming systems, although encompassing slightly different subject material. As can be clearly seen in Marcus (FIG. 1; abstract) there is no teaching or suggestion to generate a textual description consistent with at least a subset of a natural language.

Text analysis techniques producing an entity relationship diagram (US Patent No. 6,897,866 to Hetler et al.), however the distinction between an entity relationship diagram (“ERD”) and the claimed model diagram are significant. Applicants’ claimed model diagram includes “a first graphic element representing a process and a second graphic element representing an object,” whereas an ERD comprises objects and their relationships to each other instead of processes.

Object/process diagrams are known in the prior art (US Patent Publication US 2004/0054511 A1 by Turner et al., FIGS. 5, 6; paragraphs 0079-0080 in particular) but these are descriptions of a static memory model, database schema, or similar internal model for software

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engineering, and do not suggest a graphical interface system that generates a textual description of the diagrammed model, wherein said textual description is consistent with at least a subset of natural language.

None of these references taken either alone or in combination with the prior art of record disclose a method or computer program product as claimed, including:

(Claims 1 and 33) “receiving input specifying at least one graphic element of a model diagram, different graphic elements in the diagram including a first graphic element representing a process and a second graphic element representing an object, wherein said model diagram represents one or more functional aspects, one or more structural aspects, and one or more behavioral aspects of a system, and wherein said model diagram includes symbols representing stateful objects associated with states and processes, structural links, procedural links, and control links” and “based on the received input and said graphical pattern, generating a textual description of the diagrammed model, wherein said textual description is consistent with at least a subset of a natural language”

(Claims 16 and 34) “receiving a textual description of a model,” “based on the received textual description and at least said convertible portion, generating a model diagram composed of different graphic elements, the different graphical elements including a first graphic element representing a process and a second graphic element representing an object, wherein said model diagram represents one or more functional aspects, one or more structural aspects, and one or more behavioral aspects of a system, and wherein said model diagram includes symbols representing objects associated with states and processes, structural links, procedural links, and control links”

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(Claim 30) “receiving input specifying a diagram including elements labeled in accordance with a first natural language, the diagram including at least one independent object and at least one independent process, wherein said diagram represents one or more functional aspects, one or more structural aspects, and one or more behavioral aspects of a system, and wherein said diagram includes symbols representing stateful objects associated with states and processes, structural links, procedural links, and control links,” “translating the element labels from the first natural language to the second natural language,” and “generating text in the second natural language in accordance with a grammar associated with the diagram elements.”

in combination with the remaining elements and features of the claimed invention. It is for these reasons that the Applicants' invention defines over the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

### *Conclusion*

Art considered pertinent by the examiner but not applied has been cited on form PTO-892.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Proctor whose telephone number is (571) 272-3713. The examiner can normally be reached on 8:30 am-4:30 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez can be reached at (571) 272-3753. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jason Proctor  
Examiner  
Art Unit 2123

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Paul L. Rodriguez 3/23/06  
Supervisor Primary Examiner  
Art Unit 21252123